UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/016,597	10/26/2001	Curtis W. Heisey	SYNER-177XX	6523

207	7590	02/24/2006	

WEINGARTEN, SCHURGIN, GAGNEBIN & LEBOVICI LLP
TEN POST OFFICE SQUARE
BOSTON, MA 02109

EXAMINER
KISS, ERIC B

ART UNIT	PAPER NUMBER
2192	

DATE MAILED: 02/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/016,597	HEISEY ET AL.
	Examiner	Art Unit	
	Eric B. Kiss	2192	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>07 November 2005</u>.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-37</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-37</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set forth in

37 CFR 1.17(e), was filed in this application after final rejection. Since this application is

eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e)

has been timely paid, the finality of the previous Office action has been withdrawn pursuant to

37 CFR 1.114. Applicant's submission filed on 07 November 2005 has been entered.

Claims 1-27 are pending.

Response to Amendment

2.   Applicant's amendments to claims 20 and 33 appropriately address the objection to these

claims. Accordingly, this objection is withdrawn.

3.   Applicant's amendments to claims 34 and 37 appropriately address the rejection of

claims 34, 36, and 37 under 35 U.S.C. § 112, second paragraph. Accordingly, this rejection is

withdrawn.

Response to Arguments

4.   Applicant's arguments filed 07 November 2005 have been fully considered but they are

not fully persuasive.

In response to Applicant's arguments on p. 10, in paragraph 4, the examiner maintains

that the availability of upgrades, along with the board specific upgrade instructions (paragraphs

[0505] and [0506]) may be considered attributes of the embedded device in accordance with the

monitoring program code of claim 1.

5.   Applicant's arguments with regard to asynchronous monitoring in view of the teachings

of *Reynolds et al.* alone are persuasive. However, new grounds of rejection are presented below

in view of further consideration of the teachings of *Ording* (prior art of record).

Claim Rejections - 35 USC § 102

6.   The text of those sections of Title 35, U.S. Code not included in this action can be found

in a prior Office action.

7.   Claims 1-17 and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S.

Patent Application Publication No. 2003/0126195 (Reynolds et al.).

As per claim 1, *Reynolds et al.* discloses:

control program code responsive to at least one user command for issuing a plurality of

device commands including at least one device command to replace a code image in an

embedded device (see, for example, paragraph [0508]);

monitoring program code, asynchronous with respect to said control program code, for

generating at least one event indication in response to a change of at least one predetermined

attribute of said embedded device and forwarding said at least one event indication to said

control program code (see, for example, paragraphs [0504] through [0506]); and

said at least one device command replacing said code image in response to said at least

one event indication (see, for example, paragraph [0505]).

As per claim 2, *Reynolds et al.* further discloses the control program code and the

monitoring program code being independent threads of execution (see, for example, paragraph

[0503]).

As per claim 3, *Reynolds et al.* further discloses an embedded device abstraction software

object that generates at least one event to said monitoring program code in response to

information obtained from said embedded device (see, for example, paragraph [0508]).

As per claim 4, *Reynolds et al.* further discloses the embedded device abstraction

software object generating at least one event to said control program code in response to

information obtained from said embedded device (see, for example, paragraph [0508]).

As per claim 5, *Reynolds et al.* further discloses said information obtained from said

embedded device including at least one value from a Management Information Base (MIB)

stored on said embedded device (see, for example, paragraph [0119]).

As per claim 6, *Reynolds et al.* further discloses said embedded device abstraction

software object further operating to receive said at least one command from said control program

code, and, in response, send at least one corresponding query to said embedded device (see, for

example, paragraph [0512]).

As per claim 7, *Reynolds et al.* further discloses said monitoring program code operating

to periodically check the state of at least one attribute of said embedded device (see, for example,

paragraph [0521]).

As per claim 8, *Reynolds et al.* further discloses said monitoring program code operating

to periodically check the state of at least one attribute of said embedded device by sending at

least one command to said embedded device abstraction software object (see, for example,

paragraph [0521]).

As per claim 9, *Reynolds et al.* further discloses a state machine represented in program

code accessible to said control program code (see, for example, paragraphs [0734] through

[0737]).

As per claims 10-17, these are method versions of the claimed system discussed above

(claims 1 and 3-9), wherein all limitations have been addressed as set forth above.

As per claim 19, this is a means-plus-function version of the claimed system discussed

above (claim 1). Further, *Reynolds et al.* discloses equivalent structure to that which is specified

in Applicant's disclosure (see, for example, Figs. 1 and 2a-2j).

Claim Rejections - 35 USC § 103

8.   The text of those sections of Title 35, U.S. Code not included in this action can be found

in a prior Office action.

9.   Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent

Application Publication No. 2003/0126195 (Reynolds et al.) in view of U.S. Patent No.

6,549,943 to Spring.

        As per claim 18, this is a computer program product version of the claimed system

discussed above (claim 1). Although *Reynolds et al.* discloses such functionality (see the

disclosure applied above to claim 1) but fails to expressly disclose the use of such a computer

program product for implemented the prescribed system functionality, the use of such products is

well known. For example, *Spring* teaches the use of such a product in a system for network

management using abstract device descriptions (see, for example, col. 64, line 52, through col.

66, line 27). Therefore, it would have been obvious to one of ordinary skill in the computer art at

the time the invention was made to include such a computer program product as a well known

and established means of storing and transporting computer program data for a computer-

implemented method.

10.   Claims 20-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent

Application Publication No. 2003/0126195 (Reynolds et al.) in view of U.S. Patent Application

Publication No. 2001/0055017 (Ording)

        As per claim 20, *Reynolds et al.* discloses a control program operative, in response to a

user command, to replace a code image in an embedded device (see, for example, paragraphs

[0504] through [0508]); and a monitor program operative, asynchronously with respect to said

control program, to: monitor progress of replacing said code image in said embedded device

(see, for example, paragraph [0504]; Further, *Reynolds et al.* includes standard SNMP traps

enabling asynchronous notification of problems to both client and server. See paragraphs [0119]

and [0127].); and generate an event indication to said control program to indicate a status of

replacing said code image before replacement of said code image is completed (see, for example,

paragraph [0504]; Further, *Reynolds et al.* includes standard SNMP traps enabling asynchronous

notification of problems to both client and server. See paragraphs [0119] and [0127].).

 Reynolds et al. fails to expressly disclose the generating of event indication indicating the

status of replacing the code image after replacement of the code image has begun. However,

Ording teaches that it is known, in the context of performing a remote installation, to perform

byte/file monitoring in a multi-threaded asynchronous manner during a code transfer process

(see, for example, paragraphs [0017] through [0022]). Therefore, it would have been obvious to

one of ordinary skill in the computer art at the time the invention was made to modify the

method of *Reynolds et al.* to include such byte/file monitoring. One would be motivated to do so

to provide continuous feedback of an ongoing installation activity.

 As per claim 21, *Reynolds et al.* further discloses detecting a failure during said

replacement of said code image and generating the event indication to the control program in

response to detecting said failure (see, for example, paragraph [0504]; Further, *Reynolds et al.*

includes standard SNMP traps enabling asynchronous notification of problems to both client and

server. See paragraphs [0119] and [0127].).

As per claims 22 and 23, in addition to the disclosure applied to claim 20, *Reynolds et al.* fails to expressly disclose monitoring a number of bytes and files received by said embedded device and generating the event indication in response to such byte/file monitoring. However, *Ording* teaches that it is known, in the context of performing a remote installation, to perform such byte/file monitoring in a multi-threaded asynchronous manner (see, for example, paragraphs [0017] through [0022]). Therefore, it would have been obvious to one of ordinary skill in the computer art at the time the invention was made to modify the method of *Reynolds et al.* to include such byte/file monitoring. One would be motivated to do so to provide continuous feedback of an ongoing installation activity.

As per claim 24, *Reynolds et al.* further discloses monitoring the embedded device for a reset operation performed by said embedded device and generating an event indication to said control program in response to said reset operation performed by said embedded device (see, for example, paragraph [0106]).

As per claim 25, *Reynolds et al.* further discloses the control program code and the monitoring program code being independent threads of execution (see, for example, paragraph [0503]).

As per claim 26, *Reynolds et al.* further discloses an embedded device abstraction software object that generates at least one event to said monitoring program code in response to information obtained from said embedded device (see, for example, paragraph [0508]).

As per claim 27, *Reynolds et al.* further discloses the embedded device abstraction software object generating at least one event to said control program code in response to information obtained from said embedded device (see, for example, paragraph [0508]).

As per claim 28, *Reynolds et al.* further discloses said information obtained from said embedded device including at least one value from a Management Information Base (MIB) stored on said embedded device (see, for example, paragraph [0119]).

As per claim 29, *Reynolds et al.* further discloses said embedded device abstraction software object further operating to receive said at least one command from said control program code, and, in response, send at least one corresponding query to said embedded device (see, for example, paragraph [0512]).

As per claim 30, *Reynolds et al.* further discloses said monitoring program code operating to periodically check the state of at least one attribute of said embedded device (see, for example, paragraph [0521]).

As per claim 31, *Reynolds et al.* further discloses said monitoring program code operating to periodically check the state of at least one attribute of said embedded device by sending at least one command to said embedded device abstraction software object (see, for example, paragraph [0521]).

As per claim 32, *Reynolds et al.* further discloses a state machine represented in program code accessible to said control program code (see, for example, paragraphs [0734] through [0737]).

As per claims 33-37, these are method versions of the claimed system discussed above (claims 20-24), wherein all limitations have been addressed as set forth above. For reasons stated above, such claims also would have been obvious.

Conclusion

11.   Any inquiry concerning this communication or earlier communications from the

Examiner should be directed to Eric B. Kiss whose telephone number is (571) 272-3699. The

Examiner can normally be reached on Tue. - Fri., 7:00 am - 4:30 pm. The Examiner can also be

reached on alternate Mondays.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's

supervisor, Tuan Dam, can be reached on (571) 272-3695. The fax phone number for the

organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature should be directed to the TC 2100 Group receptionist:

571-272-2100.

EBK/EBK
February 17, 2006

TUAN DAM
SUPERVISORY PATENT EXAMINER